ARCHAEOLOGICAL MONITORING REPORT:

BROUGH METHODIST CHAPEL, FOSSE ROAD, BROUGH, NOTTINGHAMSHIRE

Planning Reference: pre-application Scheduled Monument Consent: S00192206 NGR: SK 83737 58413 AAL Site Code: BRFR 18 Museum Accession Number: NEKMS: 2018.30 OASIS Reference Number: allenarc1-340748



Report prepared for Newark & Southwell Methodist Circuit

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Cover image: Brough Methodist Church, looking southwest

Executive Summary

- Allen Archaeology Limited was commissioned by Newark & Southwell Methodist Circuit to conduct an archaeological scheme of monitoring and recording at Brough Methodist Church, Fosse Road in Brough, Nottinghamshire, undertaken under Scheduled Monument Consent Reference S001192206.
- Preceding desk-based assessment and a geophysical survey were undertaken and showed there to be some evidence of prehistoric activity in the area with scatters of worked flint, a Bronze Age burnt mound and Iron Age pits and postholes.
- The site lies within the scheduled area of the Roman town of *Crocalana*, a roadside settlement dating to the 1st-4th century AD. Medieval settlement activity has also been noted, comprising field systems around the settlement of Danesthorpe. Post-medieval activity is largely represented by standing historical farm buildings. The 19th century Wesleyan Methodist chapel on the site is not a listed building or locally designated. The geophysical survey indicated potential structural remains either associated with the Roman town or the later chapel.
- The archaeological monitoring demonstrated the presence of Roman archaeology comprising a disturbed dry-stone wall, sealed by an occupation layer containing frequent pottery, ceramic building material and animal bone. The findings appear to correspond with previous geophysical works which showed a high resistance anomaly north of the exposed stone feature, which could be related to further stone or brick structure. The wall and later occupation layer appear to extend beyond the limit of excavation to the northwest and southwest, suggesting the potential for further similar remains to be present within the proposed development area.
- The northeast corner of the site was stripped of turf and the works here did not reach the level of the potential archaeological horizon. No archaeology was encountered in the small trench immediately to the south of this.

1.0 Introduction

- 1.1 Allen Archaeology Limited was commissioned by Newark & Southwell Methodist Circuit to conduct an archaeological scheme of monitoring and recording during groundworks at Brough Methodist Church, Fosse Road in Brough, Nottinghamshire, prior to its potential sale for residential conversion. A Scheduled Monument Consent was sought and approved, reference S001192206.
- 1.2 All fieldwork and reporting conforms to current national guidelines, as set out in the 'Standard and guidance for archaeological watching briefs' (ClfA 2014a), Standard and guidance for an archaeological field excavation' (ClfA 2014b), the Historic England document 'Management of Research Projects in the Historic Environment' (Historic England 2015), and a specification prepared by this company (AAL 2018).
- 1.3 All documentation and records generated during the project have been converted into an appropriate format in accordance with guidelines in 'Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation' (AAF 2011). The archive will be deposited with Newark and Sherwood Museums Service within 12 months of the completion of the report.

2.0 Site Location and Description

- 2.1 The site is located to the east of the A46 at Brough, *c*.6km northeast of Newark-Upon-Trent, within the administrative district of Newark and Sherwood District Council. The site is approximately 0.04ha in size and presently occupied by a Methodist chapel with a grassed enclosure to the northeast. The site is centred at NGR SK 83737 58413 and is *c*.19.5m above Ordnance Datum (Figure 1).
- 2.2 The bedrock geology comprises a relatively thin band of mudstone running north to south, attributed to the Penarth Group, a sedimentary bedrock formed 200–204 million years ago by shallow seas. The Penarth Group mudstone band is surrounded to the immediate east by mudstone attributed to the Scunthorpe Mudstone Formation and Charmouth Mudstone Formation, and to the immediate west by mudstone of the Mercia Mudstone Group. The entirety of the site and majority of the surrounding area exhibits superficial sand and gravel of the Balderton Sand and Gravel Member, formed up to 3 million years ago (http://mapapps.bgs.ac.uk/geologyofbritain/home.html).

3.0 Planning Background

- 3.1 This scheme of works has been prepared to inform a planning application that will be submitted in due course, in advance of the proposed sale of the chapel for conversion to residential use. An initial heritage impact assessment, geophysical survey and percolation test has previously been undertaken (AAL 2017). The site is located within the Scheduled Monument of *Crococalana* Roman Town (Scheduled Monument No: SM NT 96, HA 1003479) and therefore all works will be undertaken in accordance with Historic England's Scheduled Monument Consent reference no. S00192206.
- 3.2 The approach adopted is consistent with the guidelines that are set out in the Ancient Monuments and Archaeological Areas Act (1979).

4.0 Archaeological and Historical Background

- 4.1 A desk-based assessment was compiled prior to the monitoring and the results are summarized below (AAL 2017).
- 4.2 Prehistoric activity within the area is represented by a possible burnt mound of Bronze Age date and a series of pits and postholes, likely of Iron Age date, as well as a small number of worked flint scatters.
- 4.3 There is abundant evidence of Roman activity in the area, with the site lying within the scheduled area of the Roman town of *Crococalana* (NHER NO MNT14760). Evidence from numerous archaeological investigations in the scheduled area and the immediate surroundings indicates settlement and associated activity between the 1st and 4th centuries AD, represented by building remains of high status, human burials, pottery scatters, metalwork and the Roman Fosse Way that runs through the town, broadly following the line of the A46. The scheduled area broadly follows the line of the cropmarks interpreted as town defences, with further linear features and enclosures recorded in the surrounding area, no doubt representing extra-mural settlement and the associated field systems which supported the settlement.
- 4.4 Early medieval activity has been less frequently recorded, with some areas of isolated settlement activity including enclosures, a potential timber building, and high-status metalwork which may conceivably represent a funerary site. No significant areas of early medieval settlement have been recorded in close proximity to the proposed development site although archaeological work in advance of the A46 dualling considered that the town had increased significance due to the potential continuation of settlement activity into the Anglo-Saxon period (Trent and Peak Archaeological Trust 1991).
- 4.5 Medieval activity within the search area is represented by some of the field systems and areas of ridge and furrow which survive, with the settlements of Danesthorpe, Langford and Collingham. The core of medieval settlement appears to have been centred on Danesthorpe to the southeast, rather than in close proximity to the proposed development site.
- 4.6 Post-medieval activity within the area continues to be largely agricultural in nature, with a number of extant agricultural buildings recorded in the vicinity of the site, although there is no evidence for significant activity of this date on the site.
- 4.7 The Wesleyan Methodist Chapel on the site is first shown on historic mapping in 1885, but a date stone suggests it was first built in 1826. It is shown as a much smaller structure on the 1885 map, and was likely rebuilt in the later 19th century. The building is neither nationally nor locally designated.
- 4.8 A geophysical survey of the site undertaken by Sumo Services Ltd indicated that structural remains may be present within the site, potentially associated with the scheduled Roman town, although it is possible that they may represent later features associated with the Methodist Chapel.
- 4.9 A percolation test comprising the excavation of two holes 300mm square and to a depth of 300mm revealed no archaeological features.

5.0 Aims and Objectives

5.1 The purpose of the scheme of works was to establish the precedence and character of archaeological remains at the proposed locations for drainage works and domestic extension to the former chapel, with regard to the depths of each element and the scope for adjustment to location and depth of each component.

6.0 Methodology

6.1 The monitored groundworks comprised three areas related to drainage works. A trench was excavated along the southeast side of the extant chapel which continued *c*.12.5m to the northeast before changing direction to the northwest for a further 7m with a 4.5m return to the southwest towards the chapel. To the northeast, a trench 2.5 x 2.6m (Plate 1) was excavated to *c*.1.0m depth below ground surface, and a further 3.5 x 10.5m strip was excavated towards the northeast corner of the site. This latter area had only the turf removed (Plate 2). All of the excavated areas were accurately located using a Leica GS08 RTK NetRover GPS.



Plate 1: Smaller trench to the northeast, looking northeast



Plate 2: Area to the northeast stripped of turf. Looking southwest

- 6.2 The archaeological monitoring took place between 27th September and 5th October 2018. The works were undertaken using a tracked excavator fitted with a smooth ditching bucket, which was at all times monitored by an experienced field archaeologist.
- 6.3 A full written record of the archaeological deposits were made on standard AAL context recording sheets. Drawn sections were marked with string and nails and allocated an individual drawing number. A comprehensive record of all drawings were maintained, and the location of every section drawing plotted onto the site master plan and correctly referenced. All excavated sections were drawn at an appropriate scale (1:10, 1:20 or 1:50), with Ordnance Datum heights being displayed on each drawing.
- 6.4 All archaeological deposits and features were recorded by full colour photography, with an identification number board, appropriate metric scales and a north arrow. General site shots were also taken to show the location of the groundworks and the stratigraphic sequence.
- 6.5 All finds of all classes were collected, other than obviously modern finds from topsoil and subsoil contexts. The spoil from the excavated areas were examined for further artefact recovery. Finds collected during the fieldwork were bagged and labelled with the appropriate deposit context number. All finds were processed (cleaned, marked and labelled as appropriate) at the offices of AAL. These were then submitted for specialist reporting to relevant specialist.

7.0 Results

7.1 Natural geology, 102 was encountered approximately 0.65–0.70m below the existing ground surface. Only a single archaeological feature was encountered within the excavated areas, cutting natural geology in the drainage trench to the north of the chapel. It consisted of a disturbed, southwest to northeast orientated, drystone wall, 105 (Plate 3). It was encountered at the formation level of the drain excavated around the chapel and measured *c*.1m wide with a single disturbed course of roughly hewn limestone blocks visible. A cut, [104], potentially the construction cut but possibly the result of robbing of stone from the wall was also recorded.



Plate 3: Possible Roman wall, 105, looking southwest, 1m and 0.5m scales

- 7.2 A 0.08m thick, dark brownish grey silty sand, 103, sealed the stone feature. The finds assemblage from this layer comprised five fragments of Roman ceramic building material and 54 sherds of Roman pottery, largely from jars, flagons, bowls and beakers in Black Burnished Ware, Colour coated fabric (type 1), greyware, native traditional grit-tempered wares, Dales ware and also occasional Central Gaulish Samian ware. The pottery is largely dated to the 3rd century and its condition suggests proximity to settlement. The assemblage also contained one intrusive fragment from a 19th century pantile. Bone from large sized mammals, cattle and dog, and a small proportion of oyster shells were also present. One bone displayed evidence of butchery, possibly associated with jointing of the carcass.
- 7.3 Soil samples from this context showed presence of charred material, mainly wood charcoal, potentially derived from hearth waste or general occupation debris. A single charred grain of barley was also encountered. The high quantity of intrusive and modern root material may suggest the charred material is also intrusive.
- 7.4 Layer 103 was sealed by 0.30m thick subsoil, 101 and 0.30m thick topsoil, 100.

8.0 Discussion and Conclusion

- 8.1 The archaeological scheme of works identified a potentially disturbed, Roman drystone wall that follows the same orientation as Fosse Road. A potential occupation layer of 3rd century date, containing frequent pottery, ceramic building material and animal bone sealed the wall. The high volume of finds from the layer suggested settlement activity on or in the immediate vicinity of the site.
- 8.2 The findings appear to correspond with previous geophysical works, which showed a high resistance anomaly north of the exposed stone feature, which could be related to further stone or brick structures, the full extent of which remains unknown.
- 8.3 The northeast area of the site was stripped of turf and any surviving archaeology remains in situ. No archaeology was encountered in the small trench immediately to the south.

9.0 Effectiveness of Methodology

- 9.1 The methodology was appropriate for the scope of works and has established the likelihood of surviving elements of the Roman town of *Crococalana* within the proposed development site.
- 9.2 With regard to the proposed drainage solution of a buried digester and near surface set and topsoil covered infiltration drainage the methodology was wholly successful. As regards the building extension the limitation of the area excavated to the line and depth of the proposed footing limits the interpretation of the presumed Roman wall, more detailed design solutions are likely to require further investigation if they cannot securely control depth to -600mm from surface or involve any variance in footing layout from that explored.

10.0 Acknowledgements

10.1 Allen Archaeology Ltd would like to thank Newark and Southwell Methodist Circuit for this commission.

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Appendix 1: Roman Pottery

By I M Rowlandson and H G Fiske

Introduction

Fifty-four sherds (2.126 kg, 1.09 RE) of Roman pottery from a single context were presented for study, including sherds from a samian form 18/31R bowl, colour-coated beakers including a funnel-necked type, a Black Burnished ware 1 jar with obtuse lattice (Gillam 1976 Fig. 2.10-12), a Black Burnished ware 2 type jar similar to examples made at the Lincoln racecourse kiln (Corder 1950 Fig. 3.4) and shell-gritted Dales ware jars (Table 1–Table 3). Grey ware forms present included wide-mouthed bowls, a necked jar (rim as Webster 1960 Fig. 3.17), a large lipped bowl, a cupped rim flagon in a high fired fabric (as Webster 1960 Fig. 3.12), a jar with heavily scored 'string cut' decoration and a grey ware jar with notched decoration (BK120, Darling & Precious 2014 Nos. 1077-1080). The freshness of this group was notable and suggested proximity to a settlement. The absence of straight sided bead and flange bowls and plain-rimmed dishes may suggest a mid-3rd century date for much of the group.

Perhaps unsurprisingly a large proportion of the pottery from this site appeared similar in both fabric and form to groups from Lincoln. Brough would have been one of the first sizable roadside settlements on the road from Lincoln to Leicester and the prevalence of Lincoln type coarse wares would fit with the pattern observed by the authors from the roadside settlement at Navenby, Lincolnshire located to the south of Lincoln along the route of Ermine Street (Rowlandson 2011, 2015).

Methodology

The pottery has been archived using count and weight as measures according to the guidelines laid down for the minimum archive by The Study Group for Roman Pottery (Darling 2004) using the codes developed by the City of Lincoln Archaeological Unit - CLAU (see Darling and Precious 2014). Rim equivalents (RE) have been recorded. The tabulated information is presented below (Table 1-Table 3).

Fabric code	Fabric group	Fabric details	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
SAMCG	Samian	Central Gaulish	7	12.96	66	3.10	0
CC1	Fine	Colour coated fabric	2	3.70	9	0.42	6
BB1	Reduced	Black burnished 1, unspecified	5	9.26	159	7.48	0
BB2T	Reduced	Black Burnished Ware 2 type	1	1.85	31	1.46	0
GREY	Reduced	Miscellaneous grey wares	31	57.41	1742	81.94	87
IAGR	Reduced	Native tradition/transitional grit-tempered wares	2	3.70	39	1.83	0
DWSHT	Calcareous	Dales ware type	6	11.11	80	3.76	16

Results

Table 1: Fabric Summary

Form	Form Type	Form Description	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
-	Unknown	Form uncertain	13	24.07%	184	8.65%	0
18/31R	Dish	Samian form- see	7	12.96%	66	3.10%	0
		Webster 1996					
В	Bowl	Unclassified form	1	1.85%	22	1.03%	0
BFLL	Bowl-large	Flange rimmed	1	1.85%	44	2.07%	13
ВК	Beaker	Unclassified form	1	1.85%	5	0.24%	0
BK120	Beaker	Necked jar/beaker as D&P corpus 1076- 1086	1	1.85%	27	1.27%	0
BKFN	Beaker	Funnel necked; form unknown	1	1.85%	4	0.19%	6
BWM1	Bowl- large	Wide-mouthed; D&P No.1225-7	1	1.85%	124	5.83%	19
CLSD	Closed	Form	5	9.26%	175	8.23%	0
J	Jar	Unclassified form	6	11.11%	190	8.94%	0
J162	Jar	Narrow necked; as D&P 968	1	1.85%	17	0.80%	20
JB	Jar/Bowl	Unclassified form	1	1.85%	16	0.75%	12
JBNK	Jar/Bowl	Necked	1	1.85%	14	0.66%	0
JDW1	Jar	Dales ware, as Gillam 157	2	3.70%	41	1.93%	16
JL	Jar	Large	11	20.37%	1122	52.78%	0
JNK	Jar	Necked	1	1.85%	75	3.53%	23

Table 2: Forms Summary

Context	Fab-ric	Form	Decoration	Vessels	Alt	Comments	Sherd	Wei-ght	Rim diam	Rim eve
103	SAMCG	18/31R	ROU	1		BASE FTR	7	66	0	0
103	CC1	BK		1	VAB	BS	1	5	0	0
103	CC1	BKFN		1		RIM	1	4	8	6
103	DWSHT	-		2	ABR	BS	2	30	0	0
103	DWSHT	CLSD		1	WHITE	BS	1	8	0	0
					DEP INT					
103	DWSHT	JDW1		1		RIM	1	7	16	7
103	DWSHT	JDW1		1	ABR	RIM	1	34	25	9

Context	Fab-ric	Form	Decoration	Vessels	Alt	Comments	Sherd	Wei-ght	Rim diam	Rim eve
103	DWSHT	-		1		BS; SMALL CHIP	1	1	0	0
103	GREY	BWM1		1		RIM; AS WEBSTER	1	124	27	19
						1960 FIG. 3.24				
103	GREY	JNK	CORD; BWL	1		RIM; BWL UNDER	1	75	17	23
						RIM; FORM AS				
						WEBSTER 1960				
						FIG. 3.17				
103	GREY	BK120	NOTC; BDL	1		BS SHLDR	1	27	0	0
103	BB1	J	HM; LO	1		BS SHLDR; POSS	5	159	0	0
						JCAV TYPE; RIM				
						TIP MISSING				
103	BB2T	J	BDL	1		BS SHLDR; AS	1	31	0	0
						RACECOURSE KILN				
						PRODUCTS;				
						CORDER 1950 FIG.				
						3.4 BUT WITH				
						DIAGONAL				
						BURNISHED LINE				
						DECORATION				
103	GREY	J162		1		RIM; HIGH FIRED	1	17	11	20
						AS SWANPOOL				
						TYPES				
103	GREY	BFLL		1		RIM; AS WEBSTER	1	44	25	13
						1960 FIG. 3.31				
103	GREY	JB		1		RIM; BEAD RIM;	1	16	14	12
						?NECKED FORM				
103	GREY	CLSD	STRING; SL	1		BASE; SCORED	1	61	0	0
						LINES ON LOWER				
						WALL AND ?BASE				
103	GREY	JL	STRING	1		BASE	3	388	0	0
103	GREY	JL		1	ATTRITI	BS	3	458	0	0
					ON					
103	GREY	-		10		BS	10	153	0	0
103	GREY	JL		1	ATTRITI	BS	5	276	0	0
					ON INT					

Context	Fab-ric	Form	Decoration	Vessels	Alt	Comments	Sherd	Wei-ght	Rim diam	Rim eve
103	GREY	CLSD		1	PIERCE	BASE PEDESTAL;	1	67	0	0
					D	LARGE VESSEL				
					BASE?					
103	GREY	В		1		BS	1	22	0	0
103	GREY	JBNK		1		BS NECK	1	14	0	0
103	IAGR	CLSD	WM	1		BS; GROG AND	1	13	0	0
						QUARTZ SIMILAR				
						TO LINCOLN TYPES				
103	IAGR	CLSD		1	CARBO	BS; GROG AND	1	26	0	0
					N DEP	QUARTZ SIMILAR				
					OVER	TO LINCOLN TYPES				
					BREAK	WITH RARE CALC				

Table 3: Roman pottery archive

Recommendations

All of the material should be deposited at the relevant local museum to facilitate further study. In the event of further investigations the pottery from this assemblage should be included in any final report.

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Appendix 2: Ceramic Building Material

By Zoe Tomlinson

Introduction

A total of six fragments of ceramic building material (CBM) weighing 385 grams in total were presented for examination. The material ranges in date from the Roman to the modern period. The assemblage was examined both visually and where necessary under x20 binocular microscope and then recorded using locally and nationally agreed codenames. The resulting archive was then recorded on an Access database and complies with the guidelines laid out in Slowikowski, *et al.* (2001) and the Archaeological Ceramic Building Materials Group (2001).

Condition

The material is in variable condition with most fragments showing at least a small degree of abrasion. Fragments range from small-sized fragments (15g) to medium-sized fragments (210g). Several fragments have evidence of burning.

Overview of the Material

A range of ceramic building material including Roman Tegula (TEG), Imbrex (IMB) Roman tile (RTIL), modern tile (PANT) and an unidentifiable fragment (MISC) was recovered from the site. The types are shown and quantified in Table 4.

Codename	Full name	Total fragments	Total weight (g)
RTIL	Roman tile	2	112
TEG	Tegula	1	210
IMB	Imbrex	1	28
PANT	Pantile	1	15
MISC	Unidentified type	1	20
Totals		6	385

Table 4: Ceramic material codenames and total quantities by fragment count and weight

Site Sequence

All the ceramic building material was recovered from occupation layer (103) (Table 5). This includes a fragment of Roman Tegula with a partial knife trimmed lower surface and evidence of burning to the upper surface. The fragment is a quartz rich oxidised sandy fabric with occasional iron or possibly slag inclusions. A small fragment of Imbrex was also recovered. It is in an oxidised sandy fabric with occasional pale clay marbling and occasional dark red mudrock. It also has evidence of burning which possibly extends over the broken edge. Two small fragments of un-diagnostic Roman tile were recovered one of which has signs of burning. These fragments may come from brick, Tegula, Imbrex or box flue tile. They are both sandy fabrics and have a reduced core with oxidised margins.

A small abraded fragment of unidentified ceramic building material and a small fragment of modern Pantile dating from the 18th to 20th century were also recovered (Table 5).

Conclusion and Recommendations

This small assemblage is mostly Roman in date and several fragments have evidence of burning. It is possible that the material has been redeposited from buildings in the area.

Fragments have been recorded with a fully quantified archive (Table 5). I recommend that the modern and miscellaneous tile is discarded and the remaining Roman material should be retained for future further analysis.

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site	context	cname	fabric	frags	weight	action	description	date
code								
brfr 18	103	IMB	oxidised sandy fabric +red	1	28		15mm thick; 1 x sanded edge; some burning	Roman
			mudrock +marbling				including over break; ?ID	
brfr 18	103	MISC	oxidised + iron	1	20	discard	abraded flake; vegetal impressions in fabric	
						recommended		
brfr 18	103	PANT	oxidised sandy fabric + calc	1	15	discard	corner x1; 15mm thick	C18-
						recommended		C20
brfr 18	103	RTIL	OX/R/OX sandy + iron/slag	1	25		20mm thick; slightly dished upper; ?ID TEGULA	Roman
brfr 18	103	RTIL	OX/R/OX sandy +calc +flint	1	87		19mm thick; signs of burning; ?ID TEGULA	Roman
brfr 18	103	TEG	oxidised sandy fabric +quartz	1	210		20mm thick; knife trimming to lower; burning to	Roman
			+iron/slag				surface	

Table 5: Ceramic building material archive

Appendix 3: Animal Bone

By J Wood

Introduction

A total of 93 (874g) refitted fragments of animal bone were recovered by hand during a program of archaeological works undertaken by Allen Archaeology Ltd on Land at Bough Methodist Chapel, Fosse Road, Bough, Nottinghamshire. The remains were recovered from a single occupation Layer (103), no phase data was available at the time of assessment.

Methodology

For the purposes of this assessment the entire assemblage has been fully recorded into a database archive. Identification of the bone was undertaken with access to a reference collection and published guides. All animal remains were counted and weighed, and where possible identified to species, element, side and zone (Serjeantson 1996). Also fusion data, butchery marks (Binford 1981), gnawing, burning and pathological changes were noted when present. Ribs and vertebrae were only recorded to species when they were substantially complete and could accurately be identified. Undiagnostic bones were recorded as micro (rodent size), small (rabbit size), medium (sheep size) or large (cattle size). The separation of sheep and goat bones was done using the criteria of Boessneck (1969) and Prummel and Frisch (1986) in addition to the use of the reference material. Where distinctions could not be made the bone was recorded as sheep/goat (S/G).

The condition of the bone was graded using the criteria stipulated by Lyman (1996). Grade 0 being the best preserved bone and grade 5 indicating that the bone had suffered such structural and attritional damage as to make it unrecognisable.

The quantification of species was carried out using the total fragment count, in which the total number of fragments of bone and teeth was calculated for each taxon. Where fresh breaks were noted, fragments were refitted and counted as one.

Tooth eruption and wear stages were measured using a combination of Halstead (1985), Grant (1982) and Levine (1982), and fusion data was analysed according to Silver (1969). Measurements of adult, that is, fully fused bones were taken according to the methods of von den Driesch (1976), with asterisked (*) measurements indicating bones that were reconstructed or had slight abrasion of the surface.

Results

The overall condition of the bone was moderate, averaging at grade 3 on the Lyman criteria (1996). A single fragment of large mammal size cervical vertebra displayed evidence of a single chop transversely through the centrum, possibly as part of jointing the carcass. Carnivore gnawing was noted of a single fragment of cattle astragalus.

No evidence of working, burning or pathological change within the assemblage.

Species Representation

Table 6 summarises the number of fragments of bone identified to species or taxon from each context.

Context	Cut	Taxon	Element	Side	Number	Weight (g)	Comments
103	N/A	Cattle	Metatarsal	R	1	54	Distal shaft, abraided
		Large Mammal	Skull-	R	1	18	
		Size	Palatine				
		Medium Size	Rib	Х	2	6	Blade, neck and head
		Mammal					
		Cattle	Tooth	L	1	33	Upper M2
		Cattle	Tooth	L	1	6	Upper PM
		Large Mammal Size	Vertebra	L	1	30	Centrum fragment
		Cattle	Humerus	R	1	39	Medial condyle
		Equid (Horse family)	Metapodial	R	1	106	Distal shaft, DD=31mm, Bd=53mm, Bd=41mm
		Unidentified	Unidentified	Х	3	15	
		Dog	Ulna	R	1	14	Proximal shaft DPA=22mm, SPO=31mm, BPC=16mm
		Dog	Radius	R	1	5	Proximal shaft
		Dog	Humerus	R	1	15	Distal shaft Bd=32mm
		Dog	Mandible	L	1	40	Complete with full dentition
		Dog	Mandible	R	1	35	Ramus missing. PMs missing.
		Dog	Metacarpal (IV)	R	1	2	Complete, GL=67mm, Bd=9mm
		Dog	Metacarpal (V)	R	1	3	Complete. GL=56mm,Bd=9mm
		Dog	Skull- Maxilla	R	1	23	Upper dentition in occlusion.
		Dog	Humerus	R	1	38	Greater trochanter missing. SD=13mm, Bd=35mm
		Dog	Radius	R	1	14	Distal shaft, SD=12mm, Bd=24mm
		Dog	Tibia	R	1	16	Distal shaft, Bd=23mm
		Equid (Horse Family)	Radius + Ulna	L	1	104	Proximal shaft
		Large Mammal Size	Cervical	В	1	56	Chopped through Transversely
		Large Mammal Size	Skull	х	2	24	
		Cattle	Skull- maxilla	R	1	37	Upper M1 in occlusion
		Large Mammal Size	Long Bone	х	2	15	Shaft fragments
		Medium Mammal Size	Long Bone	х	2	5	Shaft fragments
		Unidentified	Unidentified	Х	8	40	

Context	Cut	Taxon	Element	Side	Number	Weight (g)	Comments	
		Cattle	Tooth	L	1	20	Upper PM	
		Cattle	Astragalus	L	1	39	Complete, carnivore gnawing on the dorsal surface. Mostly complete shells	
		Oyster	Shell	L	3	34		

Table 6: Taxon summary, by context

As can be seen from Table 6, dog remains were the most predominant species identified within the assemblage, probably representing a single disarticulated individual. Cattle were the second most predominant species identified, with smaller numbers of Equid (Horse Family) and Oyster Shell also identified. The remaining assemblage was not identifiable beyond size category.

Discussion of Potential

The assemblage is too small to provide detailed data on the dietary economy, animal utilisation or husbandry practices taking place, save the presence of the remains on site. In the event of any further substantial work on the site, there is a good potential for further moderately well preserved remains with a good potential to provide further data on the animal husbandry and utilisation.

Significance of the Data

Due to the limited nature of the assemblage and the lack of period specific context the significance of the assemblage is restricted.

No further work is recommended on this assemblage.

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Appendix 4: Environmental Samples

By Ellen Simmons

Introduction

One bulk sieving soil sample of thirty litres in volume was taken during an archaeological evaluation at Brough Methodist Chapel, Fosse Road, Brough, Nottinghamshire (NGR: SK 83737 58413). Sample 1 was from occupation layer 103 which contained Roman pottery (Table 7). The sampled context is therefore assumed to be Roman. The sample was processed for the recovery of charred plant remains and wood charcoal and assessed in order to determine the concentration, diversity, state of preservation and suitability for use in radiocarbon dating, of any palaeoenvironmental material present. A further aim of this assessment is to evaluate the potential of any palaeoenvironmental material present in the sample to aid in an interpretation of the sampled context and an understanding of the economy or environment of the site.

Methodology

The soil sample was processed by Bryn Leadbetter of Allen Archaeology, for the recovery of charred plant macrofossils and wood charcoal using a water separation machine. Floating material was collected in a 300µm mesh, and the remaining heavy residue retained in a 1mm mesh. The flot and heavy residue was air dried. The greater than 4mm fraction of the heavy residue was fully sorted for organic remains and artefacts and then discarded. Where no potential was noted for the recovery of organic remains such as fish bone or Mollusca, or artefacts less than 4mm in size, the less than 4mm fraction of the heavy residue was then also discarded.

The sample was assessed in accordance with Historic England guidelines for environmental archaeology assessments (Historic England 2011). A preliminary assessment of the sample was made by scanning using a stereo-binocular microscope (x10 - x65) and recording the abundance of the main classes of material present. Where a total of less than thirty items of crop material and / or wild or weed plant seeds were found to be present, these were identified and quantified in full. Where a total of more than thirty items of crop material and / or wild or weed plant seeds were found to be present, these were quantified using a scale of abundance (- = < 5 items, + = > 5 items, ++ = > 10 items, +++ = > 30 items, ++++ = > 100 items). Charcoal fragments greater than 2mm in size were counted, except where more than five hundred fragments were present.

Identification of plant material was carried out by comparison with material in the author's own reference collection and various reference works (e.g. Cappers *et al.* 2006). Cereal identifications and nomenclature follow Jacomet (2006). Other plant nomenclature follows Stace (2010). Information relating to the ecology of various plant taxa was sourced from Stace (2010) and Preston *et al* (2002). The composition of the samples is recorded below. The seed, in the broadest sense, of the plant is always referred to in the table unless stated otherwise. The abbreviation *cf.* means 'compares with' and denotes that a specimen most closely resembles that particular taxa more than any other.

Results

Preservation

Preservation of plant macrofossils and wood is by charring. Preservation of cereal grain is poor, with the single grain noted as present in the sample being puffed, distorted and identifiable by gross morphology only. Preservation of wood charcoal is also somewhat poor with many fragments exhibiting evidence of vitrification, whereby charcoal takes on a glassy appearance resulting in anatomical features becoming fused and difficult to identify.

The proportion of intrusive root material in the sampled context is high which, along with the presence of a moderate abundance of the intrusive burrowing snail *Cecilioides*, indicates a high probability that any charred material present in context 103 may be intrusive.

Charred plant remains

A single charred grain of indeterminate barley (*Hordeum* sp. indet) was found to be present in occupation layer 103.

Wood charcoal

Occupation layer 103 was found to contain a rich assemblage of just under three hundred wood charcoal fragments greater than 2mm in size in cross section. Preliminary examination of the charcoal fragments using low power microscopy indicates that the charcoal assemblage is composed of both diffuse porous and ring porous taxa. Diffuse porous taxa which are frequently represented in archaeological charcoal assemblages include hawthorn / apple / pear / whitebeams (Pomoideae), willow / poplar (*Populus / Salix*), birch (*Betula* sp.), alder (*Alnus glutinosa*), hazel (*Corylus avellana*), field maple (*Acer campestre*), blackthorn (*Prunus spinosa*) and cherry (*Prunus padus / avium*). Frequently represented ring porous taxa include oak (*Quercus* sp.), ash (*Fraxinus excelsior*) and elm (*Ulmus* sp.). Identification using high power microscopy would however be necessary in order to confirm which taxa are present.

Radiocarbon dating

Material suitable for radiocarbon dating was found to be present in occupation layer 103 in the form of >4mm roundwood charcoal.

Context number	103	
Feature number	-	
Flotation sample number	1	
Feature type	Occupation layer	
Phase	Roman	
Sample volume (litres)	30	
Volume of intrusive roots (ml)	200	
Flot volume excluding roots (ml)	100	
*key - = < 5 items, + = > 5 items, ++ = > 10 items, +++ = > 30 items, ++++ = > 50		
items, +++++ = > 100 items.		
CROP MATERIAL*		
Hordeum sp. indet. (indeterminate barley) grain	1	
Total identifiable crop material	1	
NON SEED PLANT MATERIAL*		
> 4mm roundwood charcoal fragments	2	
> 4mm wood charcoal fragments	23	
2-4mm wood charcoal fragments	271	
Charcoal (DP = predominantly diffuse porous. RP = predominantly ring porous)	DP & RP	
> 1mm vitrified charcoal	+++++	
NON PLANT MATERIAL		
Cecilioides (intrusive burrowing snail)	++++	
> 1mm coal / klinker	++++	
> 1mm slag / metallurgical debris	+++++	
> 1mm CBM	++++	
> 1mm bone fragments	+++	

Table 7: Archaeobotanical sample assessment

Discussion of Potential

The rich assemblage of wood charcoal and the single charred barley grain (*Hordeum* sp.) found to be present in occupation layer 103 is likely to be representative of hearth waste or general occupation debris.

The wood charcoal assemblage is composed of both diffuse porous and ring porous taxa, which is likely to include woodland trees such as oak, ash or elm along with underwood, woodland fringe or scrub taxa. Identification of at least fifty wood charcoal fragments greater than 2mm in size would however be necessary in order to provide a representative sample of the woody taxa utilised as fuel.

No further analysis of the charred plant macrofossil or wood charcoal assemblage would however be recommended as full sorting and identification would be unlikely to yield evidence of significant research potential.

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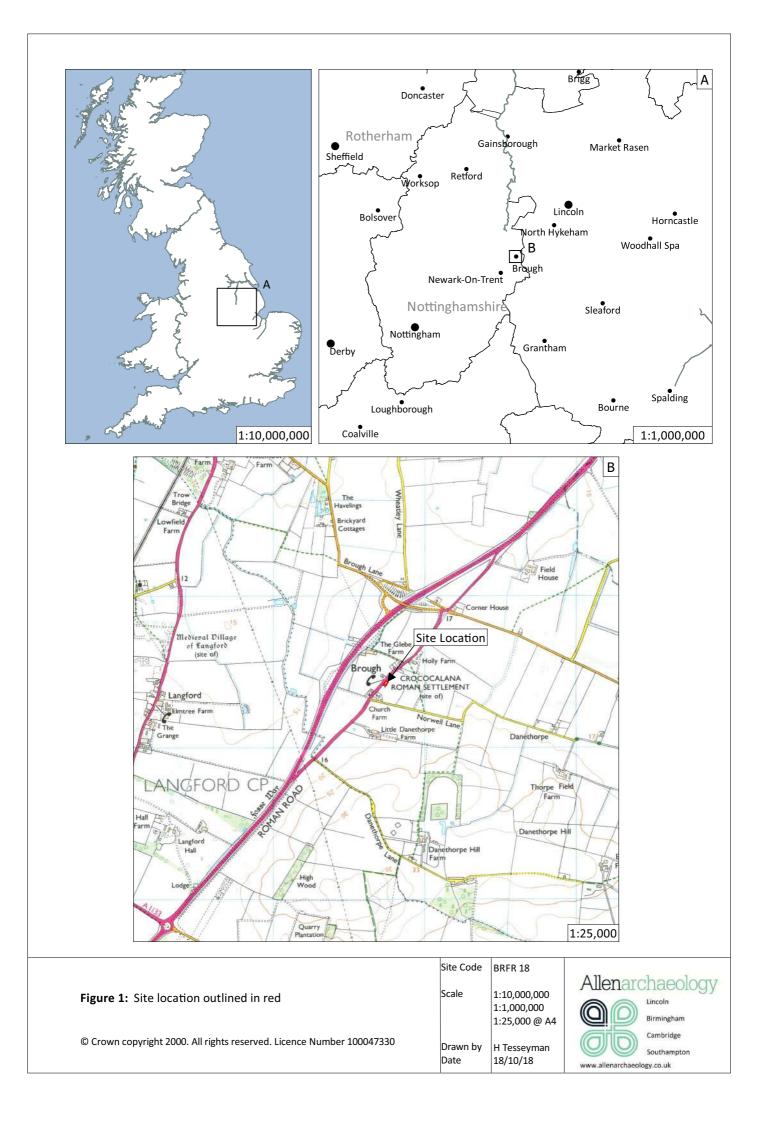
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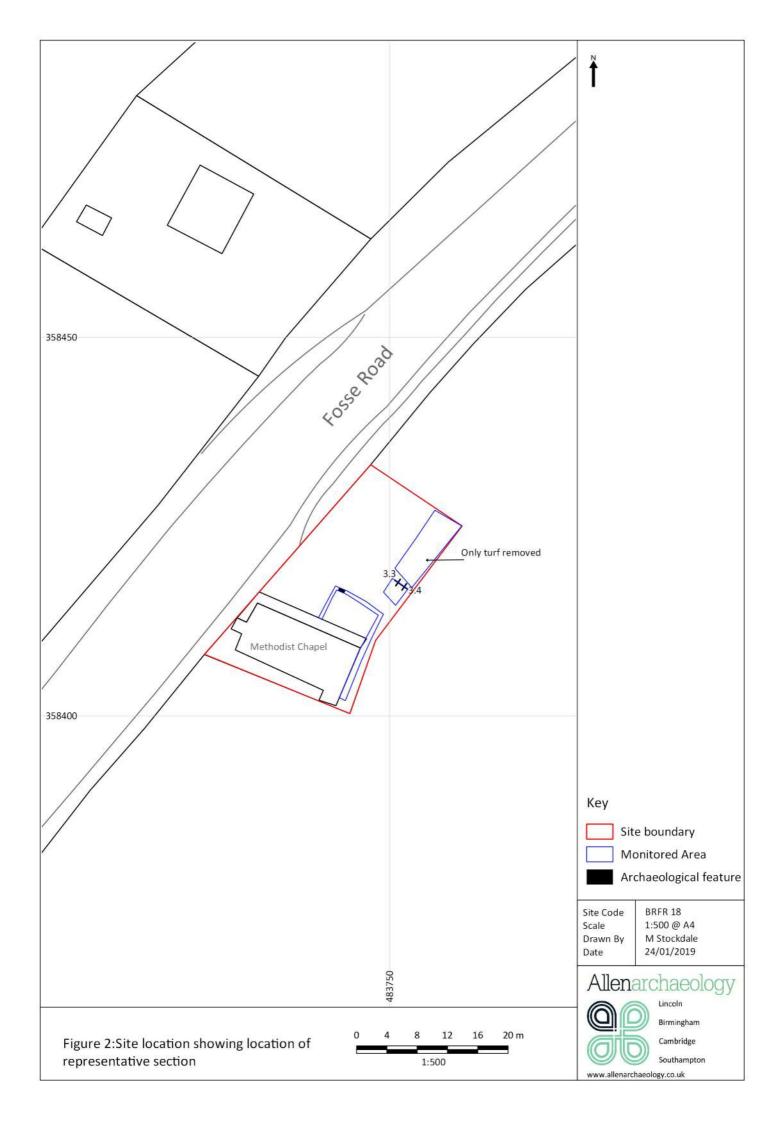
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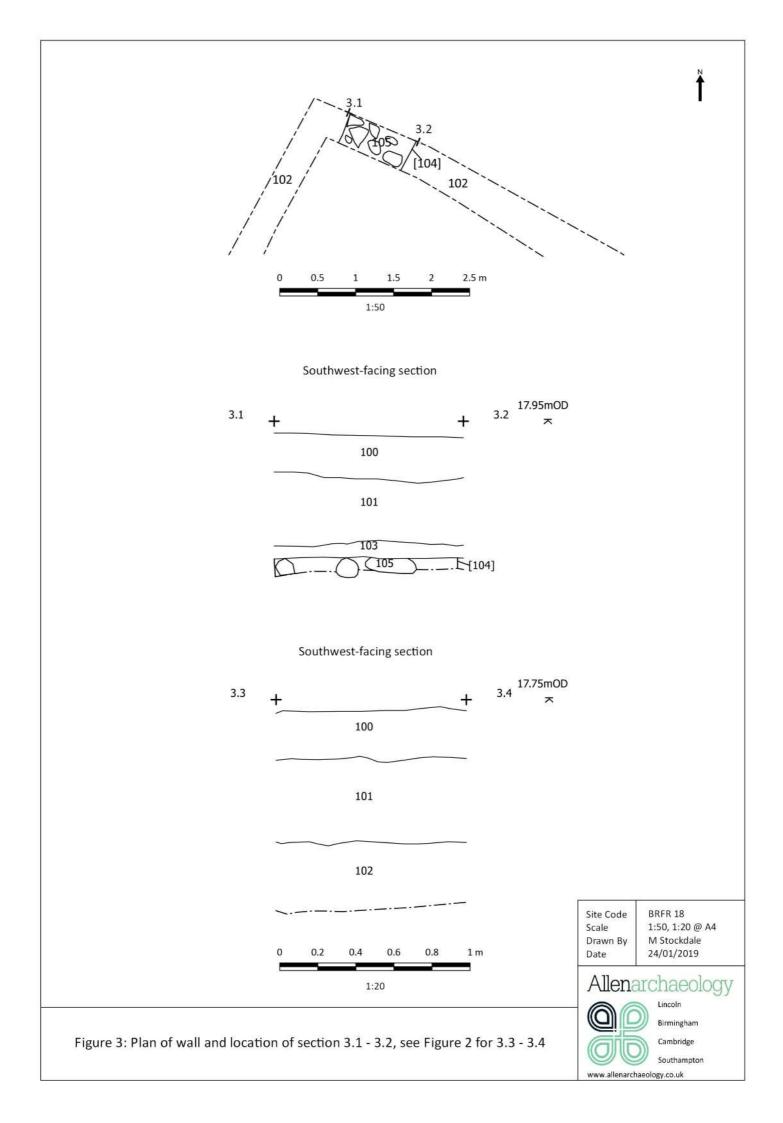
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Appendix 5: Context Summary List

Context	Туре	Description	Length (m)	Width (m)	Thickness/depth (m)	Interpretation
100	Layer	Soft, dark brownish grey silty sand with occasional inclusions of small sub- rounded stones.			0.25	Topsoil
101	Layer	Soft, dark brownish grey silty sand with occasional inclusions of small sub- rounded stones.			0.44	Subsoil
102	Layer	Firm, mid orange brown silty sand with moderate inclusions of pebbles/ small sub-rounded stones.			0.34+	Natural
103	Layer	Firm, dark brownish grey silty sand with occasional inclusions of small sub- rounded stones.			0.08	Occupation Layer
104	Cut	Linear, orientated SW-NE. Not Excavated.		1.04	0.6+	Cut of Possible Wall. Not Excavated.
105	Fill	Compact, mid greyish beige silty clay with bonding material and stones.			0.6+	Fill of Possible Wall.









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